

08/126505



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: John P. Atkinson, Dennis Hourcade and Malgorzata Krych

Patent No.: 6,897,290 B1

Issued: May 24, 2005

Title: MODIFIED RCA PROTEINS (AS AMENDED)

Certificate  
JUN 13 2005

of Correction

CERTIFICATE OF MAILING	
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450	
on <u>6-3-05</u>	<u>Sandra Jammal</u>
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<u>Sandra Jammal</u>	
Typed or printed name of person signing certificate	

REQUEST FOR EXPEDITED ISSUANCE OF CERTIFICATE OF CORRECTION

Office of Publications  
Certificate of Corrections Branch  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Pursuant to 35 U.S.C. § 254, we hereby request issuance of a Certificate of Correction for the above-referenced U.S. Patent. This request is made under 37 C.F.R. § 1.322, and is accompanied by evidence to show that the errors are attributable solely to the Office and by a completed Form PTO-1050 (1 sheet, with copy). Accordingly, expedited issuance of a Certificate of Correction is respectfully requested (M.P.E.P. § 1480.01).

The requested corrections are listed below.

Column 75

Line 58, delete "(8.9)" and insert --(8,9)--.

Column 76

Line 27, delete ", N-A-S-D" and insert --N-A-S-D--.

Line 54, delete "front" and insert --from--.

Copies of the cover page and pages 5-7 of the Amendment filed on October 15, 2004, with hand-written notations regarding the errors, are transmitted in support of the requested correction.

Since the errors were made by the U.S. Patent and Trademark Office, it is understood that there are no fees due for the requested Certificate of Correction.

Respectfully submitted,

HAMILTON, BROOK, SMITH & REYNOLDS, P.C.

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Dated: June 3, 2005

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 6,897,290 B1

DATED : May 24, 2005

INVENTOR(S) : John P. Atkinson, Dennis Hourcade and Malgorzata Krych

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 75

Line 58, delete "(8.9)" and insert --(8,9)--.

Column 76

Line 27, delete ", N-A-S-D" and insert --N-A-S-D--.

Line 54, delete "front" and insert --from--.

MAILING ADDRESS OF SENDER:

021005  
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Concord, Massachusetts 01742-9133

PATENT NO. 6,897,290 B1

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# UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO. : 6,897,290 B1  
DATED : May 24, 2005  
INVENTOR(S) : John P. Atkinson, Dennis Hourcade and Malgorzata Krych

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

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## Column 76

Line 27, delete ", N-A-S-D" and insert --N-A-S-D--.

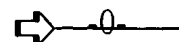
Line 54, delete "front" and insert --from--.

MAILING ADDRESS OF SENDER:

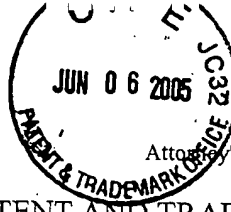
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HEW/RHU/jb  
October 15, 2004



PATENT APPLICATION  
Attorney's Docket No.: 3783.1002-011 (WU101CIP)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: John P. Atkinson, Dennis Hourcade and Malgorzata Krych

Application No.: 08/126,505

Group: 1616

Filed: September 24, 1993

Examiner: G.L. Kunz

Confirmation No.: 8768

For: MODIFIED RCA PROTEINS (as amended)

**COPY**

Date: October 15, 2004 Express Mail Label No. EV 214894026 US

AMENDMENT UNDER 37 C.F.R. § 1.312

Mail Stop ISSUE FEE  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This Amendment is being filed to correct a typographical error in Claim 11.

Please amend the application as follows:

accelerating factor, membrane cofactor protein, C4 binding protein, factor H, and these RCA proteins wherein the carboxy terminus of the RCA protein is removed to allow the protein to be secreted, wherein the modified form is selected from the group consisting of:

- a) a hybrid RCA protein comprising SCRs derived from two, different of the RCA proteins,
- b) a recombined RCA protein wherein the SCRs of the RCA protein are rearranged, and
- c) a truncated RCA protein consisting of three SCRs,

wherein the modified form of the RCA protein binds C3b, C4b, or C3b and C4b, the method comprising expressing a DNA sequence encoding the modified form of the RCA protein in a host cell.

17. (Canceled)

18. (Previously presented) The method of claim 16 wherein the RCA protein is complement receptor 1.

19. (Previously presented) The method of claim 16 wherein the RCA protein is decay accelerating factor.

20. (Previously presented) The method of claim 16 wherein the RCA protein is factor H.

21-22. (Canceled)

*Now*  
*16*  
~~23.~~ (Previously presented) A method for making a modified form of an RCA protein wherein the RCA protein is selected from the group consisting of complement receptor 1, complement receptor 2, decay accelerating factor, membrane cofactor protein, C4 binding protein, factor H, and these proteins wherein the carboxy terminus of the RCA protein is removed to allow the protein to be secreted, wherein the modified form of an RCA

protein contains amino acid substitutions in the SCRs which correspond to amino acid substitutions in the SCRs of complement receptor 1 (SEQ ID No: 13) selected from the group consisting of:

CR1-4 with its first 122 amino acids (SCR1-2) (Sequence ID Nos. 1 and 3) replaced with CR1 amino acids 497-618 (SCR 8-9) (Sequence ID Nos. 2 and 4) and CR1-4(8,9) with deletion of 194-253; substitution of amino acids 271-543 with: T-R-T-T-F-H-L-G-R-K-C-S-T-A-V-S-P-A-T-T-S-E-G-L-R-L-C-A-A-H-P-R-E-T-G-A-L-Q-P-P-H-V-K (Sequence ID No. 11), and these amino acid sequences where any I is replaced with either L or V, any L is replaced with either I or V, any V is replaced with I, L, or F, any F is replaced with V, any K is replaced with R, any R is replaced with K, any Q is replaced with N, any N is replaced with Q, any D is replaced with E, any E is replaced with D, any G is replaced with A, or any A is replaced with G, the method comprising expressing a DNA encoding the modified form of the RCA protein in a host cell.

Now 17  
24.

(Previously presented) A method for making a modified form of an RCA protein wherein the RCA protein is selected from the group consisting of complement receptor 1, complement receptor 2, decay accelerating factor, membrane cofactor protein, C4 binding protein, factor H, and these proteins wherein the carboxy terminus of the RCA protein is removed to allow the protein to be secreted, where the modified form of an RCA protein contains amino acid substitutions in the SCRs which correspond to amino acid substitutions in the SCRs of complement receptor 1 (SEQ ID NO: 13) selected from the group consisting of:

79: D (amino acid 19 of Sequence ID No. 4); 37, 79: Y, D (amino acid 37 of Sequence ID No. 2 and amino acid 19 of Sequence ID No. 4); 92: T (amino acid 32 of Sequence ID No. 4); 92-94: K...Y (amino acids 32-34 of Sequence ID No. 3); 99, 103, 106: S...T...I (amino acids 39, 43 and 46 of Sequence ID No.3); 109-112: D-T-V-I (amino acids 49-52 of Sequence ID No. 3); 110: T (amino acid 50 of Sequence ID No. 3); 111: V (amino acid 51 of Sequence ID No. 3); 112: I (amino acid 52 of Sequence ID No. 3); 1, 3: Q...N (amino acids 1, 3 of Sequence ID No. 1); 6-9: E-W-L-P (amino acids 6-9 of Sequence ID No. 1); 12-16, 18-21: K-L-K-T-Q...N-A-S-D (amino acids 12-21 of

Sequence ID No. 2); 27; 29: S...K (amino acids 27, 29 of Sequence ID No. 2); 37: S (amino acid 37 of Sequence ID No. 1); 44, 47, 49: I...K...S (amino acids 44, 47, 49 of Sequence ID No. 1); 52-54, 57, 59: TG-A...R...R (amino acids 52-54, 57, 59 of Sequence ID No. 1); 78-79, 82: K-G...F (amino acids 18-19, 22 of Sequence ID No. 3); 85, 87: Q...K (amino acids 25, 27 of Sequence ID No. 3); 12-16, 18-21: R-P-T-N-L...D-E-F-E (amino acids 12-21 of Sequence ID No. 1); 27, 29: Y...N (amino acids 27, 29 of Sequence ID No. 1); 35, 64-65, 94: G...R-N...Y (amino acid 35 of Sequence ID No. 1, amino acids 4-5, 34 of Sequence ID No. 3), and these amino acid sequences where any I is replaced with either L or V, any L is replaced with either I or V, any V is replaced with I, L or F, any F is replaced with V, any K is replaced with R, any R is replaced with K, any Q is replaced with N, any N is replaced with Q, any D is replaced with E, any E is replaced with D, any G is replaced with A, or any A is replaced with G, the method comprising expressing a DNA encoding the modified form of the RCA protein in a host cell.

Now 18

23. (Currently amended) A method for making a modified form of decay accelerating factor wherein one or more substitutions are introduced into the region of the protein corresponding to decay accelerating factor SCRs 2-3 as shown in Sequence ID No. 17  
 → selected from the group consisting of ←

180-187: S-T-K-P-P-I-C-Q (amino acids 54-61 of Sequence ID No. 4); 175-178: N-A-A-H (amino acids 49-52 of Sequence ID No. 4); 175-187: S-T-K-P-P-I-C-Q-N-A-A-H (Sequence ID No. 9); 130: R (amino acid 4 of Sequence ID No. 3); 145: D (amino acid 19 of Sequence ID No. 4); 77-84: K-L-K-T-Q-T-N-A-S-D (amino acids 12-21 of Sequence ID No. 2); 90-92: S-L-K (amino acids 27-29 of Sequence ID No. 2), and these amino acid sequences where any I is replaced with either L or V, any L is replaced with either I or V, any V is replaced with I, L, or F, any F is replaced with V, any K is replaced with R, any R is replaced with K, any Q is replaced with N, any N is replaced with Q, any D is replaced with E, any E is replaced with D, any G is replaced with A, or any A is replaced with G, the method comprising expressing a DNA encoding the modified form of decay accelerating factor in a host cell.